AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

1 (original). An antigen-based heteropolymer (AHP) complex comprising a monoclonal antibody specific for binding to complement receptor (CR1) site on a primate erythrocyte, wherein said monoclonal antibody is crosslinked to an antigen specific for a target pathogenic antibody or autoantibody.

2 (original). The AHP of Claim 1, wherein the monoclonal antibodies are selected from the group consisting of 1B4, HB8592, and 7G9.

3 (original). The AHP of Claim 1, wherein the target antibody or autoantibody is selected from the group consisting of antibodies or autoantibodies to the following antigens: factor VIII, muscle acetylcholine receptor, cardiolipin, platelet associated proteins, antigens associated with Sjogren's Syndrome, double stranded deoxyribonucleic acid (dsDNA), and single stranded DNA (ssDNA).

4 (original). The AHP of Claim 1, wherein said antigen is selected from the group consisting of factor VIII, muscle acetylcholine receptor, cardiolipin, platelet associated proteins, antigens associated with Sjogren's Syndrome, double stranded deoxyribonucleic acid (dsDNA), and single stranded DNA (ssDNA).

Claim 5 (canceled).

6 (original). A method for treating an autoimmune disease comprising the steps of:

1) administering to a human or non-human primate a clinically effective amount of an AHP, said AHP comprising a monoclonal antibody specific for complement receptor (CR1) site on a primate erythrocyte, and wherein said monoclonal antibody is crosslinked to an antigen which is specific for a target pathogenic antibody or autoantibody;

2) allowing said AHP to bind to at least one competing CR1 site and to said pathogenic antibody or autoantibody; and

3) permitting said bound AHP to be cleared from circulation of said human or non-human primate.

7 (original). The method of Claim 6, wherein the monoclonal antibody is selected from the group consisting of 1B4, HB8592, and 7G9.

8 (original). The AHP of Claim 6, wherein the target antibody or autoantibody is selected from the group consisting of antibodies or autoantibodies to the following antigens: factor VIII, muscle acetylcholine receptor, cardiolipin, platelet associated proteins, antigens associated with Sjogren's Syndrome, double stranded deoxyribonucleic acid (dsDNA), and single stranded DNA (ssDNA).

9 (original). The AHP of Claim 6, wherein said antigen is selected from the group consisting of factor VIII, muscle acetylcholine receptor, cardiolipin, platelet associated proteins, antigens associated with Siogren's Syndrome, double stranded deoxyribonucleic acid (dsDNA), and single stranded DNA (ssDNA).

10 (original). The method of Claim 6, wherein the AHP is administered intravenously to a human or non-human primate in a clinically effective amount.

11 (original). The method of Claim 10, wherein said AHP is administered intravenously to a human in a clinically effective amount of 1-10 mg.

12 (original). The method of Claim 6, wherein said administration of said clinically effective amount of AHP is repeated until the pathogenic antibody or autoantibody is completely cleared from circulation of said human or non-human primate.

13 (original). The method of Claim 6, wherein said target pathogenic antibody or autoantibody is cleared from a circulatory system of a primate and said primate erythrocyte is recirculated through the circulatory system.

14 (original). A method for treating an autoimmune disease comprising the steps of:

1) administering to a human or non-human primate an effective amount of an AHP cocktail comprising at least two AHP's, wherein each AHP comprises a monoclonal antibody specific for complement receptor (CR1) site on a primate erythrocyte, and wherein said monoclonal antibody is crosslinked to an antigen which is specific for a target pathogenic antibody or autoantibody;

2) allowing said AHP cocktail to bind to at least one competing CR1 site and to said pathogenic antibody or autoantibody; and

3) permitting said bound AHP cocktail to be cleared from circulation of said human or non-human primate.

15 (original). A method for treating an autoimmune disease comprising the steps of:

1) franking human or non-human primate erythrocytes with an AHP, said AHP comprising a monoclonal antibody specific for complement receptor (CR1) site on a

primate erythrocyte, and wherein said monoclonal antibody is crosslinked to an antigen which is specific for a target pathogenic antibody or autoantibody;

2) administering to a human or non-human primate a clinically effective amount of the AHP-franked erythrocytes;

3) allowing said franked AHP to bind to said pathogenic antibody or autoantibody; and

4) permitting said bound AHP to be cleared from circulation of said human or non-human primate.

16 (new). A method of detecting the presence of an auto-antibody in a primate, said method comprising the steps in the order stated:

(a) contacting a primate plasma sample containing erythrocytes with a composition comprising an antigen-based heteropolymer, wherein said heteropolymer comprises a first antibody specific for binding to a primate erythrocyte, and an antigen specific for a preselected auto-antibody, wherein said first antibody is cross-linked to said antigen; and

(b) detecting binding of the auto-antibody in the sample to the antigen-based heteropolymer bound to the primate erythrocyte.

17 (new). The method of Claim 16, wherein the detecting step comprises the following steps in the order stated:

(a) separating the erythrocytes from the soluble plasma components; and

(b) contacting the erythrocytes with a labeled secondary antibody specific for the auto-antibody.

18 (new). The method of Claim 17, wherein the first antibody is specific for the complement receptor on the primate erythrocyte.

19 (new). The method of Claim 18, wherein the first antibody is selected from the group consisting of 1B4, HB8592 and 7G9.